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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/816,182	03/23/2001	Darwin J. Prokop	53844-5019	5852

7590                    01/15/2004  
MORGAN, LEWIS & BOCKIUS LLP  
1701 Market Street  
Philadelphia, PA 19103

EXAMINER
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FALK, ANNE MARIE

ART UNIT	PAPER NUMBER
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1632

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.	09/816,182	Applicant(s)	PROCKOP ET AL.
Examiner	Anne-Marie Falk, Ph.D.	Art Unit	1632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1) Responsive to communication(s) filed on 23 October 2003.  
2a) This action is **FINAL**.      2b) This action is non-final.  
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

4) Claim(s) 1-10 is/are pending in the application.  
4a) Of the above claim(s) 4-8 and 10 is/are withdrawn from consideration.  
5) Claim(s) \_\_\_\_\_ is/are allowed.  
6) Claim(s) 1-3 and 9 is/are rejected.  
7) Claim(s) \_\_\_\_\_ is/are objected to.  
8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9) The specification is objected to by the Examiner.  
10) The drawing(s) filed on 23 March 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.  
13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) The translation of the foreign language provisional application has been received.  
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

1) Notice of References Cited (PTO-892)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 0703.  
4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.  
5) Notice of Informal Patent Application (PTO-152)  
6) Other: \_\_\_\_\_

## DETAILED ACTION

The response filed October 23, 2003 has been entered.

Claims 1-10 are pending in the instant application.

Applicant's election without traverse of Group I, Claims 1-3 and 9 in the response filed October 23, 2003 is acknowledged. The elected invention is drawn to a population of small and rapidly self-renewing stem (RS) cells.

Claims 4-8 and 10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the response filed October 23, 2003.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Bruder et al. (1997).

The claims are directed to a population of small and rapidly self-renewing stem (RS) cells, wherein the cells within said population express one or more polypeptides selected from the group consisting of VEGF receptor-2 (FLK-1), TRK (an NGF receptor), transferrin receptor, and annexin II (lipocortin 2). Given the present claim language, the Examiner construes the claims to cover heterogenous cell compositions that comprise cells other than the cells expressing the one or more polypeptides mentioned in the claims. The claims are not limited to a homogeneous cell composition.

Bruder et al. (1997) disclose isolated human mesenchymal stem cells. Given that the human mesenchymal stem cells identified in the instant application represent a subpopulation within human mesenchymal stem cells, one of skill in the art would recognize that the cells claimed are comprised within the population of isolated human mesenchymal stem cells disclosed by Bruder et al. The expression of the particular polypeptides such as FLK-1, TRK, transferrin receptor, and annexin II is considered an inherent property of a known cell type. In the decision of *In re Spada*, 15 USPQ2d 1655 (CAFC 1990) the court points out that discovery of a new property or use of a previously known composition, even if unobvious from prior art, cannot impart patentability to claims to known compositions.

Thus, the claimed invention is disclosed in the prior art.

Claims 1-3 and 9 are rejected under 35 U.S.C. 102(a) as being anticipated by Colter et al. (March 28, 2000).

Colter et al. (2000) discloses a cell type referred to as recycling stem cells or RS-2 cells. The cells are disclosed as being present in isolated human marrow stromal cells (MSC). For the reasons discussed above, expression of the particular polypeptides mentioned in the claims is considered an inherent property of the cells.

Thus, the claimed invention is disclosed in the prior art.

Claims 1-3 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by DiGirolamo et al. (1999).

DiGirolamo et al. (1999) disclose a population of human marrow stromal cells with high colony-forming efficiency and replicative potential. For the reasons discussed above, expression of the particular polypeptides mentioned in the claims is considered an inherent property of the cells.

Thus, the claimed invention is disclosed in the prior art.

*Conclusion*

No claims are allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne-Marie Falk whose telephone number is (571) 272-0728. The examiner can normally be reached Monday through Friday from 10:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Reynolds, can be reached on (571) 272-0734. The central official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to William Phillips, whose telephone number is (703) 305-3482.

Anne-Marie Falk, Ph.D.

*Anne-Marie Falk*  
ANNE-MARIE FALK, PH.D.  
PRIMARY EXAMINER